AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listing of claims in the Application. Please amend the claims to read as follows:

1-105. (Cancelled)

106. (Previously presented) A method of providing graphical schematic data to a mobile device, the method comprising the steps of:

retrieving geographical data representative of a geographical network from a database, the data including a plurality of geographical features;

receiving configuration data indicative of a property of the device;

selecting one of a plurality of schematic types in dependence on the configuration data;

selecting a set of geographical features from the geographical data;

in accordance with the selected schematic type, processing the selected geographical features in accordance with a geometrical simplification algorithm and generating a graphical schematic from the processed geographical features; and

outputting the graphical schematic to the device.

107. (Previously presented) A method according to claim 106, wherein the plurality of schematic types comprise a first type being a representation of a single junction, and a second type being a representation of multiple junctions.

108. (Previously presented) A method according to claim 107, wherein selecting a set of geographical features from the geographical data comprises selecting features relating to a single junction if the first type of schematic is selected, and selecting features relating to at least two junctions and a route connecting the at least two junctions if the second type of schematic is selected.

109. (Previously presented) A method according to claim 108, wherein selecting features relating to a junction comprises selecting features which would be perceived by a pedestrian to be part of a junction in dependence on predetermined criteria.

110. (Previously presented) A method according to claim 106, wherein the property is the screen resolution of the device.

111. (Previously presented) A method according to claim 106, wherein the simplification algorithm aligns the features with a selected screen geometry.

112. (Previously presented) A method according to claim 106, wherein the data includes a plurality of nodes, and the simplification algorithm adjusts the relative positions of the nodes.

113. (Previously presented) A method according to claim 106, wherein the data includes a plurality of edges, and the simplification algorithm adjusts the relative angles between at least two such edges.

114. (Previously presented) A method according to claim 113, wherein the simplification algorithm snaps the relative angles of at least two edges to one of a set of preferred angles.

115. (Previously presented) A method according to claim 113, wherein the simplification algorithm adjusts the relative angles of at least two edges to be parallel or anti-parallel.

116. (Previously presented) A method according to claim 106, wherein the simplification algorithm includes the steps of:

identifying preferable alignment relationships between different elements of the data; and

adjusting the relative positions of the elements so as to provide an arrangement which best satisfies the identified alignment relationships.

117. (Previously presented) A method according to claim 116, the data including at least one node and at least two edges connected to the node(s) and being representative of junction exits, and wherein the simplification algorithm includes the steps of identifying at least two edges as junction exits; identifying preferable alignment relationships between the junction exits; and adjusting the relative positions and/or angles of the junction exits so as to provide an arrangement which best satisfies the identified alignment relationships.

118. (Previously presented) A method according to claim 116, further comprising computing a measure of the strength of the alignment relationships in dependence on the similarity of the

geometry of the elements to a predetermined relationship, such as a parallel or anti-parallel relationship.

119. (Previously presented) A method according to claim 106, the data including nodes and edges connected to the nodes, and wherein the simplification algorithm preserves anti-parallel relationships between pairs of edges in preference to parallel relationships between pairs of edges.

120. (Previously presented) A method according to claim 106, the data including nodes and edges connected to the nodes, and wherein the simplification algorithm includes the steps of identifying one or more of said edges as junction exits; and grouping the junction exits into clumps of junction exits which can be displayed as emanating from the same point.

121. (Previously presented) A method according to claim 120, wherein the simplification algorithm attempts to minimise the number of clumps.

122. (Previously presented) A method according to claim 106, the data including nodes and edges connected to the nodes, and wherein the simplification algorithm includes the steps of:

identifying one or more of said edges as junction exits;

determining the angle of each of the junction exit(s); and

modifying the data in accordance with the angle(s) of the junction exit(s).

123. (Previously presented) A method according to claim 122, wherein the junction exit is defined by a series of polyline segments at different angles, and the angle of the junction exit is determined by analysing the polyline segments to determine a representative angle.

124. (Previously presented) A method according to claim 106, further comprising the steps of: receiving route data defining a route as a set of nodes; computing a measure of the significance of one such node; and processing the route data in accordance with the computed significance.

125. (Previously presented) A method according to claim 124, wherein computing a measure of the significance of a node comprises classifying the node as one of significant and insignificant.

126. (Previously presented) A method according to claim 124, wherein computing a measure of the significance of a node comprises retrieving a first parameter associated with a first edge connected to the node and a second parameter associated with a second edge connected to the node; and comparing the first and second parameters.

127. (Previously presented) A method according to claim 126, wherein the first parameter comprises a classification associated with the first edge and the second parameter comprises a classification associated with the second edge.

128. (Previously presented) A method according to claim 126, wherein the first parameter comprises a road name associated with the first edge and the second parameter comprises a road name associated with the second edge.

129. (Previously presented) A method according to claim 124, further comprising segmenting the route into a plurality of route segments in accordance with said computed significance.

130. (Previously presented) A method according to claim 124, comprising computing a measure of the significance of each of a plurality of such nodes.

131. (Previously presented) A method according to claim 130, comprising segmenting the route into a plurality of route segments in accordance with said computed significances.

132. (Previously presented) A method according to claim 131, wherein segmenting the route comprises generating a route segment bounded by two significant nodes.

133. (Previously presented) A method according to claim 131, the route having a start node and an end node, and wherein segmenting the route comprises generating a plurality of route segments each bounded by two significant nodes or by one significant node and one of the start and end nodes.

134. (Previously presented) A method according to claim 131, further comprising further segmenting one of the plurality of route segments if the segment exceeds a pre-determined length or if the segment comprises more than a pre-determined number of insignificant nodes.

135. (Previously presented) A method according to claim 131, comprising generating a graphical schematic for at least one of the plurality of route segments, preferably for each of the plurality of route segments.

136. (Previously presented) A method according to claim 106, wherein the graphical schematic generated is one of: a location schematic for providing information about a location, an orientation schematic for enabling a user to determine their location, and a routing schematic for indicating a route.

137. (Previously presented) A method according to claim 106, further comprising:

selecting one or more of points of interest from a database in accordance with a predetermined selection algorithm; and

generating a graphical schematic including the selected points of interest.

138. (Previously presented) A method according to claim 137, wherein the selection algorithm includes the steps of:

ranking a plurality of points of interest; and

selecting one or more of the points of interest in accordance with their rank.

139. (Previously presented) A method according to claim 137, wherein the selection algorithm includes the steps of:

retrieving one or more stored parameters associated with each point of interest; and

selecting one or more of the points of interest in accordance with their associated stored parameter(s).

140. (Previously presented) A method according to claim 137, wherein the selection algorithm comprises the steps of:

selecting a location; and

selecting one or more points of interest within a predetermined radius of the selected location.

141. (Previously presented) A method according to claim 137, wherein the database includes a plurality of nodes and the selection algorithm includes the step of:

selecting a node;

defining a region surrounding the node; and

selecting points of interest within the defined region.

142. (Previously presented) A method according to claim 141, wherein the step of defining a region surrounding the node comprises defining a circular region centred on the node.

143. (Previously presented) A method according to claim 137, wherein the selection algorithm selects one or more of points of interest from the database in accordance with at least one of: the visibility of the points of interest; and the time of day.

144. (Previously presented) A method according to claim 137, further comprising storing a list of favorite points of interest associated with a particular user, wherein the selection algorithm preferentially selects points of interest stored in the list.

145. (Previously presented) A method according to claim 106, wherein the graphical schematic relates to a location bounded by a defined geographical area, the method comprising the steps of:

selecting one or more of points of interest falling outside the defined geographical area from the database; and

generating a graphical schematic of the defined geographical area, the graphical schematic including an indication of the direction of the point(s) of interest falling outside the defined geographical area.

146. (Previously presented) A method according to claim 145, wherein the graphical schematic also includes an indication of the distance to the point(s) of interest falling outside the defined geographical area.

147. (Previously presented) A method according to claim 106, further comprising: determining the current position of the moon or sun; and including in the generated graphical schematic information which indicates the determined position, preferably in the form of a marker.

148. (Previously presented) A method according to claim 147, wherein the position of the marker within the schematic is dependent on the current position of the moon or sun.

149. (Previously presented) A method according to claim 147, wherein the marker comprises a shadow image, the configuration of the shadow image being dependent on the current position of the moon or sun.

150. (Previously presented) A method according to claim 106, wherein the graphical schematic is generated by, processed by and/or output from a central server; the method including receiving and displaying the graphical schematic at a mobile client device.

151. (Previously presented) Apparatus for providing graphical schematic data to a mobile device, comprising:

means for retrieving geographical data representative of a geographical network from a database, the data including a plurality of geographical features;

means for receiving configuration data indicative of a property of the device;

means for selecting one of a plurality of schematic types in dependence on the configuration data;

means for selecting a set of geographical features from the geographical data;

means for, in accordance with the selected schematic type, processing the selected geographical features in accordance with a geometrical simplification algorithm and generating a graphical schematic from the processed geographical features; and

means for outputting the graphical schematic to the device.

152. (Previously presented) A computer program product for providing graphical schematic data to a mobile device, comprising a computer usable medium storing a computer program which, when executed, causes a processor to perform a method as claimed in claim 106.

153. (New) Apparatus for providing graphical schematic data to a mobile device, comprising a processor and associated memory arranged to:

retrieve geographical data representative of a geographical network from a database, the data including a plurality of geographical features;

receive configuration data indicative of a property of the device;

select one of a plurality of schematic types in dependence on the configuration data;

select a set of geographical features from the geographical data;

in accordance with the selected schematic type, process the selected geographical features in accordance with a geometrical simplification algorithm and generate a graphical schematic from the processed geographical features; and

output the graphical schematic to the device.